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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Klaus-Dieter Bures

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2908

7590

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Friedrich Kueffner  
Suite 910  
317 Madison Avenue  
New York, NY 10017

EXAMINER

LARKIN, DANIEL SEAN

ART UNIT

PAPER NUMBER

2856

DATE MAILED: 05/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/718,945	<b>Applicant(s)</b> BURES, KLAUS-DIETER	
	<b>Examiner</b> Daniel S. Larkin	<b>Art Unit</b> 2856	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 21 November 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 3 and 5-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 3 and 5-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 November 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☒ Certified copies of the priority documents have been received in Application No. 09/974,706.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |                                                                                                                        |                                                                                         |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                            | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

### DETAILED ACTION

1. Acknowledgment is made of applicant's preliminary amendment filed 21 November 2003. The Office Action that follows takes into account the changes made in the specification and claims.

#### *Priority*

2. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in parent Application No. 09/974,706, filed on 10 October 2001.

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#### *Drawings*

3. Figures 1A, 1B, and 2-4 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). The specification appears to suggest that the above-cited figures disclose known and common situations.
4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description:  

Reference numeral "3", as shown in Figure 9, does not appear in the written specification.

Reference numeral "27", as shown in Figures 8 and 9, does not appear in the written specification in describing Figure 9.

Reference numeral "42", as shown in Figures 12 and 14, does not appear in the written specification.

Reference numeral "43", as shown in Figure 12, does not appear in the written specification.

5. The drawings are objected to under 37 CFR 1.83(a) because they fail to show "the wide big volume vessels in combination with the dilution vessel" with respect to Figure 9, as described in the specification, page 17, lines 8 and 9. The specification, page 16, lines 30 and 31, previously discloses that the volume of the vessel and of the supplying capillaries are big in comparison with the volume of the KV flow resistance 29; however, Figure 9 does not show a "wide big volume vessel and a dilution vessel" in the partial leg 26.

Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d).

6. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description:

Reference numeral --221 --, as disclosed on page 19, lines 1, 10, and 13, does not appear within Figure 16 as suggested by the written specification.

7. The drawings are objected to because of the following:

Reference numeral "31", as shown in Figure 9, appears to be pointing to a junction rather than an "outlet conduit" as disclosed with respect to Figure 8

The German term "Anhang", as shown in Figure 15, should either be deleted or corrected with an English equivalent term.

8. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the following must be shown or the feature(s) canceled from the claim(s):

the placement of a gel permeation chromatography column, as recited in claim 8, within the viscosimeter having a flow conduit with two legs and three parallel flow circuits in combination with all of the remaining limitations of claim 3 and shown in Figure 17;

the placement of a refraction detector, as recited in claim 10 within the viscosimeter having a flow conduit with two legs and three parallel flow circuit in combination with all of the remaining limitations of claim 3 and shown in Figure 17; and

a viscosimeter embodied in Figure 17 having a flow conduit with two legs and three parallel flow circuits in combination with all of the remaining limitations of claim 3 placed within closed space as recited in claim 9. No new matter should be entered.

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9. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

***Specification***

10. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

11. The disclosure is objected to because of the following informalities:

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Page 1, "newly amended" line 4: The phrase --, now U.S. Patent No. 6,708,553 -- should be inserted after the date "October 10, 2001".

Page 1, "old" text line 2: The phrase -- BACKGROUND OF THE INVENTION -- should be inserted prior to the first paragraph.

Page 1, "old" text line 2: The phrase -- 1. Field of the Invention -- should also be inserted prior the first paragraph

Page 1, "old" text line 4: The phrase "according to the preamble of the claims 1, 3, and 4" should be deleted since claims 1 and 4 have been canceled and claim 3 could be amended to teach something different than what is stated now.

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Page 1, "old" text line 5: The phrase -- 2. Description of the Related Art -- should be inserted prior to the second paragraph.

Page 1, "old" text line 12: The term "gram" should be corrected to read -- grams --.

Page 1, "old" text line 18: The term "capillar" should be corrected to read -- capillary --.

Page 1, "old" text line 20: The term "capillar being" should be corrected to read -- capillary being --.

Page 4, line 12: The phrase -- SUMMARY OF THE INVENTION -- should be inserted prior to this paragraph.

Page 4, lines 18 and 19: The reference to the claims should be deleted.

Page 4, line 20: Reference to claim 1 should be deleted. A phrase such as "one embodiment" should be used to replace the term "claim 1".

Page 4, lines 25 and 26: A -- comma -- should be inserted after both occurrences of the term "resistances".

Page 6, line 20: Reference to claim 3 should be deleted. A phrase such as "another embodiment" should be used to replace the term "claim 3".

Page 6, lines 21 and 22: A -- comma -- should be inserted after both occurrences of the term "resistances".

Page 6, line 21: The term "wuch" should be corrected to read -- such --.

Page 6, line 25: Reference to claim 1 should be delete. A phrase such as "the first embodiment" should be used to replace the term "claim 1".

Page 7, line 15: Reference to claim 4 should be deleted. A phrase such as "another embodiment" should be used to replace the term "claim 4".

Page 7, lines 16 and 17: A -- comma -- should be inserted after both occurrences of the term "resistances".

Page 8, lines 14 and 15: The reference to the claims should be deleted.

Page 9, line 22: The abbreviation "fig." should be corrected to read -- FIGS. --.

Page 10, line 1: The phrase -- BRIEF DESCRIPTION OF THE DRAWINGS -- should be inserted prior to the first paragraph.

Page 10, lines 1, 2, 4, 6, 9, 11, 15, 16, and 19: The abbreviation "Fig." should be corrected to read -- FIG. --.

Page 10, lines 6, 8, and 23: The abbreviation "fig." should be corrected to read -- FIG. --.

Page 10, line 13: The abbreviation "fig." should be corrected to read -- FIGS. --.

Page 10, line 22: The phrase -- DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS -- should be inserted prior to the last paragraph.

Page 11, lines 2, 6, 12, 13, 21, 23, and 27: The abbreviation "Fig." should be corrected to read -- FIG. --.

Page 11, line 3: A -- comma -- should be inserted after the term "example".

Page 12, lines 14, 19, and 24: The abbreviation "Fig." should be corrected to read -- FIG. --.

Page 12, line 16: The term "practise" should be corrected to read -- practice --.

Page 14, line 14: The abbreviation "fig." should be corrected to read -- FIGS. --.



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Page 14, line 15: The abbreviation "fig." should be corrected to read -- FIG. --.

Page 15, line 3: The abbreviation "fig." should be corrected to read -- FIG. --.

Page 15, line 14: The abbreviation "Fig." should be corrected to read -- FIG. --.

Page 15, line 22: The verb "are" should be corrected to read -- is --; and reference numeral -- 34 -- should be inserted after the term "basin".

Page 15, line 24: Reference numeral "30" should be corrected to read -- 28 --, since reference numeral "35" appears in conduit (25) and flow resistance (28) is after the compensating vessel (35) in conduit line (25).

Page 16, line 23: The abbreviation "Fig." should be corrected to read -- FIG. --.

Page 16, line 26: A -- comma -- should be inserted after the term "diameter".

Page 16, line 27: Reference numeral -- 27 -- should be inserted after the term "capillary".

Page 16, line 29: Reference numeral -- 34 -- should be inserted after the term "vessel"; and the term "behind" should be corrected to read -- downstream of the KV flow resistance --.

Page 16, line 31: The term -- KV flow resistance -- should be inserted prior to reference numeral "29".

Page 17, line 2: The term "figure" should be corrected to read -- FIG. --.

Page 17, lines 3, 13, 18, 19, and 30: The abbreviation "fig." should be corrected to read -- FIG. --.

Page 17, line 6: Reference numeral -- 29 -- should be inserted after the "resistance".

Page 17, line 9: Reference numeral -- 34 -- should be inserted after the term "vessel".

Page 17, line 16: The term -- partial legs -- should be inserted prior to reference numeral "25".

Page 17, line 21: The term "resistance" should be corrected to read -- resistances --.

Page 17, line 25: A -- comma -- should be inserted after the term "Preferably".

Page 17, line 31: The abbreviation "fig." should be corrected to read -- FIGS. --.

Page 18, lines 5 and 23: The abbreviation "fig." should be corrected to read -- FIG. --.

Page 18, line 5: A -- comma -- should be inserted prior to the term "such".

Page 18, line 7: The abbreviation "fig." should be corrected to read -- FIGS. --.

Page 18, line 10: A -- comma -- should be inserted after the term "example".

Page 18, line 26: The term "behind the" should be corrected to read -- downstream of a --.

Page 18, line 28: The term -- provided -- has been misspelled. The misspelling could have been caused by a scanning error when the paper copy was converted to an image.

Page 19, line 20: Should the term "conduit" be corrected to read -- junction -- since all of the other means (107, 111) for connecting two capillaries together have been designated as junctions?

Page 19, lines 23 and 24: The term "junction" should be corrected to read

-- branch point --.

Page 19, lines 24 and 25: The phrase -- in leg L1 -- should be inserted after the term "section".

Page 20, line 5: The term "conduit" should be corrected to read -- junction -- in order to maintain consistency in terminology given that element 107 has been previously disclosed as a junction, page 18, line 30.

Page 20, line 14: The term "conduit" should be corrected to read -- junction -- in order to maintain consistency in terminology given that element 111 has been previously disclosed as a junction, page 19, line 7.

Page 20, lines 17, 24, and 26: The term "junction" should be corrected to read -- branch point --.

Page 20, line 22: The term -- point -- should be inserted after the first occurrence of the term "branch"; and the term "branch118" should be corrected to read -- branch point 118 --.

Page 21, lines 3, 4, and 9: The abbreviation "fig." should be corrected to read -- FIG. --.

Page 21, line 25: The term -- also -- should be inserted prior to the term "leads".  
Appropriate correction is required.

***Claim Objections***

12. Claims 3 and 5-11 are objected to because of the following informalities:

Re claim 3, claim line 9: The second occurrence of numeral "15" should be corrected to read -- 16 --.

Re claim 3, claim line 13: The term -- parallel -- has been misspelled.

Re claim 3, claim line 18: The phrase "the Thomson bridge" lacks antecedent basis.

Re claim 3, claim line 19: The term -- first -- should be inserted after the article "a".

Re claim 3, claim line 20: The term -- point -- should be inserted after the term "branch".

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Re claim 3, claim line 21: The term -- first -- should be inserted prior to the term "pressure".

Re claim 3, claim line 22: The term "following" should be replaced with the term -- second --.

Re claim 3, claim line 22: The phrase -- which leads -- should be inserted prior to the term "to".

Re claim 3, claim line 24: The term -- second -- should be inserted prior to the term "pressure"

Re claim 3, claim line 24: The phrase "the feeding conduit" lacks antecedent basis.

Re claim 3, claim line 24: The phrase -- which leads -- should be inserted prior to the term "to".

Re claim 3, claim line 25: The term -- first -- should be inserted prior to the term "junction"; and a -- semicolon -- should be inserted prior to the conjunction -- and --.

Re claim 3, claim line 26: The term -- first -- should be inserted prior to the term "branch".

Re claim 3, claim line 27: The term -- third -- should be inserted prior to the term "pressure".

Re claim 3, claim line 28: The term -- third -- should be inserted prior to the term "branch"; and the term -- point -- should be inserted after the term "branch".

Re claim 3, claim line 29: The term -- second -- should be inserted prior to the term "junction".

Re claim 3, claim line 30: The term -- first -- should be inserted prior to the term "resistance".

Re claim 3, claim line 31: The phrase "the junction" lacks antecedent basis; and the phrase -- a third junction -- should replace the phrase "the junction".

Re claim 3, claim line 33: The term -- second -- should be inserted prior to the term "resistance".

Re claim 3, claim line 34: The phrase "the conduit" lack antecedent basis.

Re claim 3, claim line 34: The term -- third -- should be inserted prior to the term "junction".

Re claim 3, claim line 35: The term -- fourth -- should be inserted prior to the term "junction".

Re claim 3, claim line 35: The term -- second -- should be inserted prior to the "resistance".

Re claim 3, claim line 36: The term -- fourth -- should be inserted prior to the term "junction".

Re claim 3, claim line 38: The term -- first -- should be inserted prior to the term "junction".

Re claim 3, claim line 38: A -- comma -- should be inserted prior to the conjunction "and" and after the term "thus".

Re claim 5, claim lines 1 and 2: The phrase -- the direct flow opening" lacks antecedent basis.

Re claim 5, claim line 3: The "period" after the term "shape" should be deleted.  
A claim is to be comprised of only one sentence.

Re claim 5, claim line 4: The phrase "the microsystem component" lacks antecedent basis.

Re claim 6, claim line 2: The numeral "0, 1" should be corrected to read -- 0.1 --.

Re claim 7, claim line 5: The article -- the -- should be inserted prior to the term "KV flow resistance".

Re claim 9, claim line 3: The phrase "the conduit network" lacks antecedent basis.

Re claim 10, claim line 3: The phrase "the conduit network" lacks antecedent basis.

Re claim 11, claim lines 1 and 2: The phrase "the conduit network" lacks antecedent basis. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

13. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

14. The claims are generally narrative and indefinite, failing to conform with current U.S. practice. They appear to be a literal translation into English from a foreign document and are replete with grammatical and idiomatic errors.

Dh  
15. Claims 3 and 5-11/ are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Re claim 3, claim lines 1-39: The claims are written with reference numerals in the top section of the claim that do interact with the reference numerals in the middle and bottom portions of the claim. This is very confusing to understand what is being claimed. The claims must be clear without having to use reference numerals to aid in the clarity and understanding of the claimed limitations.

Re claim 3, claim lines 10 and 11: The phrase "such as" renders the claim

indefinite because it is unclear whether the limitations following the phrase, disk-shaped or leaf-shaped Venturi nozzles or different KV flow resistances, form part of the claimed invention. See MPEP § 2173.05(d).

Re claim 3, claim lines 11 and 12: The phrase "smallest possible thickness" is indefinite because the phrase is a term of relevance whose definition or degree has not been previously defined. The specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

Re claim 3, claim line 12: The term "small" is deemed to be indefinite because small is a relative term whose definition or degree has not been previously defined. The specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

Re claim 3, lines 12 and 13: The phrase "with respect to all other parallel and following capillaries" is deemed to be indefinite because one is unclear as to how many capillaries are defined by this phrase.

Re claim 3, claim line 24: Is this "pressure reducing element" the same element recited above in claim line 21? The reference numerals are not being relied upon to determine clarity or antecedent basis.

Re claim 3, claim line 27: Is this "pressure reducing element" the same element recited above in claim line 21 and/or claim line 24?



Re claim 3, claim line 28: Is this "branch" the same element recited above in claim line 20?

Re claim 3, claim line 28: The term "big volume" is deemed to be indefinite because "big" is a term of relevance whose definition or degree has not been previously defined.

Re claim 3, claim line 29: Is this "junction" the same element recited above in claim line 25?

Re claim 3, claim line 31: Is this "junction" the same element recited above in claim line 25 and/or claim line 29?

Re claim 3, claim line 33: Is this "resistance capillary" the same element recited above in claim line 30?

Re claim 3, claim line 34: Is this "junction" the same element recited above in claim line 25, claim line 29, and/or claim 31?

Re claim 3, claim line 35: Is this "junction" the same element recited above in claim line 25, claim line 29, claim line 31, and/or claim 34?

Re claim 3, claim line 35: Is this "resistance capillary" the same element recited above in claim line 30 and/or claim line 33?

Re claim 3, claim 36: Is this "junction" the same element recited above in claim line 25, claim line 29, claim line 31, claim line 34, and/or claim 35?

Re claim 3, claim 38: Is this "junction" the same element recited above in claim line 25, claim line 29, claim line 31, claim line 34, claim line 36, and/or claim 38?

Re claim 5, claim line 3: The phrase "another appropriate geometrical shape" is deemed to be indefinite because one is unclear what an appropriate geometrical shape entails.

Re claim 7, claim lines 1-6: This claim recites reference numerals that do not appear in the invention claimed which appears to be embodied in Figure 17.

Re claim 7, claim lines 5 and 6: The phrase "smallest possible thickness" is indefinite because the phrase is a term of relevance whose definition or degree has not been previously defined.

Re claim 8, claim lines 1-6: This claim recites reference numerals that do not appear in the invention claimed which appears to be embodied in Figure 17.

Re claim 9, claim line 9: The term "big" is deemed to be indefinite because "big" is a term of relevance whose definition or degree has not been previously defined.

Re claim 9, claim line 3: This claim is reciting reference numerals that do not appear in the invention claimed which appears to be embodied in Figure 17.

Re claim 10, claim lines 1-3: The phrase "a detector working with another working method" is deemed to be indefinite because one is unclear as to what detectors are to be considered and what detectors are not to be considered.

Re claim 11, claim lines 3 and 4: The term "preferably" is deemed to be indefinite because one is unclear as to whether the claim intends to claim that a "closed space" is used or an "adjustable heat bath". Additionally, one is unclear as to when it is preferable to use a bath or not use a bath.

***Allowable Subject Matter***

16. The following is a statement of reasons for the indication of allowable subject matter:

Prior art was not relied upon to reject claim 3 and 5-11 because the prior art fails to teach and/or make obvious a viscosimeter having a flow conduit system with two legs which shows three parallel flow circuits among which at least two flow circuits are connected by a differential pressure sensor comprising the specific placement of the pressure reducing elements, the resistance capillaries, and the junctions and branch points in combination with all of the remaining limitations of the claim.

***Conclusion***

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The prior art discloses various viscometers having a bridge arrangement.


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18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel S. Larkin whose telephone number is 571-272-2198. The examiner can normally be reached on 8:00 AM - 5:00 PM Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams can be reached on 571-272-2208. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Daniel Larkin  
AU 2856  
16 May 2004



**DANIEL S. LARKIN**  
**PRIMARY EXAMINER**